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Food-Related Consumer Behavior Endorsing European Food Chain Sustainability—A Marketing Study on the Romanian Consumer

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Abstract: The efforts of regulators and food industry actors to achieve ambitious European sustainability objectives should not only be based on, but also supported by, consumers' behavior, since customers' demand has the ability to determine changes in the whole food system. This paper's systemic approach to customers' sustainable food-related habits and opinions during purchase, consumption and waste management offers a comprehensive view of their decision criteria, their motivations and their preferred incentives. Researching the Romanian consumer's sustainable habits yields some results which confirm findings of previous studies, including customers' distrust of sustainable labels and ecological products being considered too expensive. Meanwhile, other results offer novel insights on the matter, such as distrust in the European Union food policy and the high importance of proximity both for retailers and for recycling facilities. Four customer profiles with different interests and behaviors were identified: the Principled, adopting many sustainable behaviors out of principle, despite their low level of food expenditures; the Wannabes, adopting some fashionable sustainable habits; and the Privileged and the Sceptics, adopting very few sustainable habits, the first to ensure their social and economic status and the second to save some money.

Keywords: sustainability; food-related consumer habits; food chain; retailers; groceries; customer profiling; pro-sustainability interventions

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1. Introduction

Increasing well-mixed greenhouse gas emissions during the last 40 years have caused the acceleration of global warming, the last 7 years having been the warmest [1]. Considering that up to 37% of global greenhouse gas emissions are attributed to the food system [2], the European Commission initiated a series of measures, through the Green Deal, with the main objective of transforming Europe into the first climate-neutral continent by 2050 [3]. The Farm to Fork Strategy, which stands at the heart of the European Green Deal [4], brings the strategic measures promoting sustainability closer to the customers by addressing some of their problems and needs, such as ensuring security and affordability of nutritious and sustainable food [4]. However, national regulations sometimes lag behind the European ones [5,6].

In an ideal free market, the sustainable demand of educated customers could determine changes in the whole food system, as all the other actors in the supply chain—farmers, processing industry, wholesale and retail sellers, even the transportation companies—aim to fulfill customers' demand. In the real world, regulators pursue sustainability through public policies addressed both to the industry and the consumers, similar to other successful environmental changes in the past. For instance, reducing smoking was pursued by banning public advertisement and sponsorship from tobacco companies, accompanied by banning smoking in public places for customers, actions supported by social marketing techniques [7]. In the same way, for sustainability initiatives to be efficiently implemented, consumers' support should be earned through regulations and marketing techniques [7,8].

Helping customers to adopt a series of sustainable food-related habits will further potentiate the European food industry's efforts toward the ambitious objective of becoming a climate-neutral continent.

The customer's role in creating a sustainable society was intensely studied in the literature; however, as presented below, most papers addressed only parts of the consumer's behaviors and attitudes, such as recycling or meat consumption, without offering a full view of the issue. A SAPEA report [2] delivered a complete overview of the matter, but is only based on secondary sources of information and predates 2020. Starting with the consumer-related sustainability issues found in the scientific literature and in the European Commission's public documents, this paper aims to fill this research gap by exploring in a systemic manner the customer's sustainable food-related habits and opinions during food purchase, consumption and waste management, with a focus on the Romanian market.

Many Europeans are affected by malnutrition, either lacking sufficient nutrients or consuming an excess of calories. Analyzing statistical data from 1961–2009, Tilman and Clark [9] emphasized several trends explaining why malnutrition affects people in developed countries: the higher Gross Domestic Product in a country, the higher the demand for meat protein; and the higher people's income, the higher their demand for 'empty calories' and 'total per capita caloric demand'. Having so many options to choose from, Europeans do not always make wise decisions when buying food. According to EUROSTAT [10], in 2019, 56.4% adult Romanians were overweight and 10.5% obese, comparable to EU-27, with 51.3% Europeans overweight and 16% obese. This is mainly a social problem, but it has economic implications, since it costs "EU Governments up to 120 billion euros annually" [2] (p. 34).

Making wise food-related decisions would have a positive impact on the environment, too. "If European diets were in line with dietary recommendations, the environmental footprint of food systems would be significantly reduced" [11] (p. 5), since, according to a study in Finland, "70% of the carbon footprint of the average lunch plate comes from emissions associated with farming processes" [12] (p. 1). Additionally, Tilman and Clark [9] showed that an omnivorous diet causes the highest levels of greenhouse gases level, followed by Mediterranean and pescatarian diets, while the a vegetarian diet causes almost none. Reducing the quantity of meat in Europeans' diets would have a positive impact on the environment, not only due to the reduction of the greenhouse gases caused by livestock farming, but also because meat is the fourth most wasted food category [13], processing it consumes large quantities of natural resources (water, energy) and its packaging is non-organic [14].

People have a limited understanding of the food system and its impact on the environment [15], especially in the context of globalization and modern grocery retailing, where the geographic and social distance between the producer and the consumer is larger [16]. To help this situation, sustainable labels have been introduced, showing the carbon footprint left by production, transportation and commercialization of each product [17].

Reviewing the literature, Rondoni and Gasso [17] found that, in particular, women and older people with higher income and education levels, as well as consumers who have previously bought eco-labelled or local food, were more prone to buy products with the carbon footprint label. Problems regarding sustainable labels include: customers' distrust of the claim of sustainability [18], low level of knowledge regarding sustainability labels [17], low visibility of the sustainability labels among different types of labels or among the multitude of products in the store [19,20], cultural norms contradicting some innovative sustainable solutions [21], and customers erroneously anticipating certain information from the labels, such as the price or expiry date [17]. Additionally, people do not seem willing to pay more for the carbon footprint label when there are also other special labels on the product [17].

In addition to sustainable food, people can choose to adopt other food-related habits that influence the industry, the environment and their own wellbeing, including: eating at home or at restaurants; buying or raising their own food; shopping at the farmers' market,

hypermarket or online; buying ecological or sustainable labelled food, etc. For instance, while eating out supports the food industry, eating at home can be more sustainable [22].

Consumers' demand for sustainable food is affected by the disparities met between the modern large food production and/or retailing companies (e.g., multinational food processing companies, hypermarkets, supermarkets and discount stores) and the smaller sustainable ones (e.g., farmers, local food processing companies and farmers' markets); while the first are more comfortable and cheaper, the last are more sustainable, constituting components of the short, local food supply chains [23,24]. Most of the time, the sustainable companies are unable to make economies of scale, they face unfavorable national or regional regulation, and are more distressed because of non-European competitors that can escape European regulation by distance selling [25]. While encouraging sustainable production and retailing, ensuring a competitive business environment for all participants is of the utmost importance. Discussing competitiveness, Čajková et al. [26] show that economic growth depends on, among other things, the competition of small start-ups with large established companies (sustainable vs. modern) and on the national or regional economic specialization based on competitive advantages. Therefore, it can be argued that not only should locally produced food be considered sustainable, but also food produced in specialized regions. For instance, the olive oil produced in Spain, Italy and Greece is a sustainable product, because despite the necessity of transportation across Europe, it follows the distribution of the natural resources as a competitive advantage.

Preventing and managing food wastage are also important aspects of the food chain's sustainability, since it constitutes 8–10% of the released gas emissions [2]. Food wastage happens on all levels of the food industry, including farms, food processing companies, wholesale companies, retailers, restaurants and households; however, 50% of the food wastage in high-income countries is found at the household level [2]. In 2018, Romanian households generated 0.2 tons/inhabitant of waste; this is half of the 0.38 tons/inhabitant level in EU-27 [27,28], because Romanians recycle less than other Europeans and Romanian Municipalities rarely offer the necessary support services for composting and recycling. For instance, between 2010–2018, only 11–13% of the generated municipal waste has been recycled in Romania [29].

The European Commission proposes two types of actions to decrease food wastage and its negative impact on humans and on the environment: preventive 'Reduction' of production and consumption, especially for low-quality food; and 'Valorization' or reintroducing food wastage into the production circuit by reusing, recycling or recovering the food [2]. Different studies show that technological advancement [30,31] and digital world [32] changed the agri-food sector, allowing people to valorize the food wastage not only by composting, but also by sharing or accessing other people's or companies' goods. Concerns were raised, though, that food sharing could encourage people to continue reckless food buying [33], that health and hygiene cannot be regulated [30] and that it offers a false feeling that food insecurity and hunger is under control [34].

Choosing (1) to buy sustainable food from sustainable providers, (2) to reduce the quantity of purchased food in order to prevent wastage, (3) to valorize wastage by reusing, recycling or recovering the food and its packaging, and (4) to develop other food-related sustainable habits including eating more at home and buying more often in agro-markets, are difficult tasks for most customers, but for some, such behaviors seem natural. People interested in sustainability are altruistic [35] and take into consideration their actions' impact on the environment [36,37]; they are more likely to be a woman and have a higher level of education [38] and income [39]. Verain et al. [40] stress that socio-demographic variables are not enough to segment the public regarding their pro-sustainability, and that lifestyle variables should also be considered. Therefore, consumers can be greens, potential greens or non-greens [37]; environmental green or price-sensitive green [41]; and industry trusting, health oriented or price-oriented [42]. It is noted that price-sensitive people are buying green products less often, with price acting as a barrier [37,43]. Torres [44] identified four segments of young consumers: committed (strong sustainability values), farm-to-fork

(preference for local, sustainable and small family farming food, but not for organic food), unattached (interested, but not decided), and skeptic (not interested at all).

Consumers' perceived responsibility varies with their level of adoption of sustainable behaviors [45]: consumers with linear behaviors take no responsibility for the environment and society in their food-related actions except recycling; customers with transitioning behaviors learn and engage in some niche experimental sustainable habits; and customers with circular behaviors assume responsibility for their actions and an active role in supporting the circular economy practices. Important factors encouraging sustainable behaviors are personal motivation and perceived effectiveness of their sustainable habits [37], as well as stakeholders making space for the customers' involvement, since the division between consumption and production is less clear in the circular economy [45].

According to behavioral science research, consumers' behavior can be either deliberated, when taking important decisions, or automatic and spontaneous, when taking regular or unimportant decisions [46]. Educating and informing the consumers could help or 'nudge' them to make automatic sustainable food-related decisions when purchasing, consuming and managing the wastage. To this effect, different types of interventions can be designed, including:

- Offering supportive regulations for sustainable food-related decisions, referring to the written legal rules of the system, including incentives, punishments and constraints [47];
- Ensuring a competitive [26] and safe [6] environment, where customers are protected by laws as the weak partner in the exchange [6] and benefit from advantageous purchasing conditions such as low prices and high product quality [26];
- Modeling consumers' behaviors toward sustainability through public policies including fiscal policies, food quality standards [48] and introducing sustainability labels [17], etc.;
- Creating or reinforcing sustainable social norms, the unwritten rules and standards considered by the society a moral guide, whose non-compliance is sanctioned socially, instead of legally [49];
- Regardless of other interventions, the presence of the support services (e.g., easy access to recycling bins) is irreplaceable. Support services can include devices and technologies such as Just-in-Time Adaptive Interventions, i.e., technology-aided tailored interventions that provide personalized support, based on human coaches and algorithms, in order to create new habits regarding food purchasing, consumption and waste management, similar to health programs helping people to lose weight, stop smoking, etc. [50];
- School classes [45] and other forms of education regarding nutrition and sustainable habits;
- Marketing communication campaigns [7] meant to persuade people to act sustainably, sponsored by governments, non-governmental organizations or companies in the food-industry.

Analyzing the literature, DoCanto et al. [45] summarize how consumers can learn about sustainable behaviors "through formal education in schools, promotion campaigns in the media, education policies promoted by governments, or even through companies' educational and engagement efforts" [45] (pp. 9–10). Additionally, Mozaffarian et al. [49] emphasize the importance of government policy at all levels (international, national, state, city, local neighborhoods and communities), the importance of cooperation between multiple stakeholders (academia, health systems, advocacy groups, businesses, employers, schools, multinational companies, etc.) and some domains of interventions (population education, point-of-purchase information, fiscal policies, food quality standards, etc.).

The literature review emphasized the need for more studies focused on food consumption and on consumers' attitude regarding food making processes, in order to: (1) achieve a systematic understanding of the sustainable consumer's behaviors, and (2) design sustainability interventions effective in each specific context where they are implemented [2]. The importance of this study derives from its systemic approach, tackling customer's food-related habits and opinions regarding the desirable sustainable behaviors found in the

scientific literature, while searching for effective habit interventions, over the three phases: purchase, consumption and waste management.

2. Materials and Methods

This paper presents a behavioral science qualitative research study on Romanian consumers, and is meant to offer a systematic understanding of their food-related choices in the purchase, consumption and waste management phases.

Research Objectives:

- Describing Romanian consumers' food purchasing habits (3.1), including preferred retailers, criteria used in the decision-making process, ecological products purchasing, food expenditures level and frequency of eating out;
- Assessing the level of adoption of healthy eating habits according to dietary guidelines (3.2);
- Evaluating their waste management behavior—wasted food categories and recycling habits (3.3);
- Assessing Romanian consumers' profiles regarding food-related sustainable habits (3.4);
- Identifying motivators and preferred incentives that would help the adoption of healthier and more sustainable food-related habits (3.1–3.4).

The questionnaire (see Supplementary Materials) was based on food sustainability issues found in the scientific literature and the European Commission's public documents. It has 26 questions, out of which 4 are Likert scales, 10 single choices, 7 multiple choices and 5 open-ended questions. The questionnaire was tested on 23 individuals before being distributed. The final variables and their contribution to each objective are presented in Table 1.

Table 1. Questionnaire items.

Section	No.	Variables	Objectives
Demographics	Q1	Macro-regions	3.1–3.4
	Q2	Domicile in Urban/Rural area	
	Q3	Age	
	Q4	Level of studies	
	Q5	Number of family members	
	Q6	Food expenditures level	
	Q7	Work field	
	Q8	Agro-habits in the household	
	Q9	Weight	
	Q10	Height	
Purchasing habits	Q11	Eating out before COVID-19	3.1, 3.4–3.5
	Q12	Eating out during COVID-19	
	Q13	Favorite retailers	
	Q14	Criteria used in decision-making process	
	Q15	Reasons for paying more	
	Q24	Purchasing ecological products	
Eating healthy habits	Q16	Share of each food category in the total eaten food	3.2, 3.4–3.5
	Q17	Reasons for eating healthier	
Waste management habits	Q18	Reasons for throwing away food	3.3, 3.4–3.5
	Q19	Measures taken to reduce the quantity of wasted food	
	Q20	Awareness of food sharing platforms	
	Q21	Recycling level	
	Q22	Separating organic and recoverable waste	
	Q23	Incentives for separating organic and recoverable waste	
General aspects	Q25	General opinions	3.4–3.5
	Q26	Non-food-related sustainable habits	

Sampling Method. Stratified random sampling was used to select respondents in all four Romanian macro-regions, both in urban and rural areas, and of all ages. Despite the fairly large sample of 307 respondents, this exploratory research remains qualitative because the objective of building a representative sample of the Romanian population was not achieved in terms of size and structure (age, geographic area of residence and urban-rural areas). Moreover, the research could be replicated in other countries, with different implementation levels of consumers' sustainable habits, in order to offer an even more comprehensive image.

Data collection was operator-assisted on an online platform during January–February 2022.

Data analysis process. The results were processed with IBM SPSS. First, univariate descriptive statistics and bivariate correlations were estimated for the whole sample of 307 respondents. Then, to prepare for K-Means Cluster Analysis, some aggregate scores were estimated, either by computing the mean of several components measured with Likert scale (e.g., non-food-related sustainable score, level of acceptance of innovative habits, distrust, quantity of wasted food, buying from sustainable retailers), or by reporting each answer to a grid (e.g., eating healthy score, referring to respondents' consumption level reported to the recommended quantities in dietary guides for each nutrient category), or even by counting (e.g., level of implementation of sustainability habits: less than or over five adopted sustainable habits). After standardizing variables expected to count in the analysis, multiple iterations were run, reducing the number of used variables (eliminating the ones with low F values) while ensuring a high level statistical significance (lower than 0.0001 for all used indicators) through ANOVA.

Sample Description. The 307 respondents were living both in urban (77%) and rural (23%) areas, in all four Romanian macro-regions: (1) North-West and Centre (13%), (2) North-East and South East (26%), (3) South-Muntenia and Bucharest area (51%), (4) South-West and West (10%). Out of the 307 respondents in the sample, 55% are less than 30 years old, 77% have a university degree, 69% are buying all the food they consume, 44% are working in offices, and only 12% are sometimes working the land or/and raising some animals for their own household's consumption. Most households in the sample have two–four members (27% with two members, 28% with three members and 26% with four members) and spend a maximum of 300 euro/month/household on food (40%—101–200 euro, 37%—201–300 euro), with 74% of respondents spending a maximum of 100 euro/month/person; the more family members, the lower the level of food expenditures per person ($r = -0.71$, $p < 0.01$).

3. Results

One quarter of the respondents (25%) consider that their food-related behaviors have no impact on the environment, one third (31%) do not recycle anything, only 23% of respondents eat healthily, and 56% have a normal BMI. One in three (32%) wastes less than 10% of their food and one in five recycles everything out of principle (19%) and accepts innovative sustainable habits such as consuming genetically modified food and insect-based proteins (18%). Acceptance of innovative sustainable habits is correlated positively with buying online ($r = 0.33$, $p < 0.01$) and negatively with distrusting the food system ($r = -0.74$, $p < 0.01$).

3.1. Food Purchasing Habits

Most respondents (69%) are buying all their food, and they usually do so from modern retail chain stores such as supermarkets, hypermarkets or discount stores (82%). Only 23% of respondents buy food frequently from the agro-markets and 27% from non-chain proximity stores. Buying from the agro-markets seems to be an indicator of sustainable habits, since it is positively correlated with recycling ($r = 0.21$, $p < 0.01$) and having many sustainable habits ($r = 0.17$, $p < 0.01$), but indirectly correlated with eating out ($r = -0.15$, $p < 0.01$); additionally, people buying often from agro-markets and farmers' gate ($r = 0.26$, $p < 0.01$) seem to avoid modern chain retailers ($r = -0.15$, $p < 0.01$). European online

shopping for groceries increased by 8.8% in 2020–2021, reaching a market share of 6.6% [39], and within this sample, 9% respondents were buying food online frequently and 28% sometimes. Buying online is positively correlated with the acceptance of innovative sustainable habits (r = 0.33, $p < 0.01$) and eating out (r = 0.27, $p < 0.01$), but indirectly correlated with the level of distrust in the food policies (r = −0.31, $p < 0.01$); this portrays a modern consumer, interested in sustainable behaviors.

The most important criteria used by the respondents to choose what to buy are: food being nutritive and healthy (41% very important and 48% important) and the store being in close proximity (37% very important and 44% important), followed by the food being produced in Romania (27% very important and 37% important). Using Factor Analysis in SPSS, the criteria consumers use in their decision-making process were divided in three factors (15–19% variance): product's perceived quality (being ecological, Romanian, nutritive and healthy), provenience (favorite brand and safe supplier), and facilities (cheap products, discounts, proximity of the store, possibility of installments). Bivariate analysis showed that while using product's perceived quality criteria when choosing what products to buy was found negatively correlated (r = 0.17, $p < 0.01$) with buying from sustainable retailers (agro-market, farmer's gate, non-chain proximity stores), using provenience as criterion was negatively correlated (r = 0.18, $p < 0.01$) with buying from modern chain retailers (supermarkets, hypermarkets and discount stores).

Most respondents (74%) spend a maximum of 100 euro/person/month for food, 24% spend 100–200 euro/person/month, and only in 8 out of 307 households spend 300 euro/person/month or more. People spending a maximum of 100 euro/person/month declare that they would spend more if the products would smell and taste good (86%), would be sold directly by the farmer (83%), would have been produced in Romania (68%), would look very good (67%), would be brought at home (62%), would be ecological (59%), or would be of a well-established brand (57%). People spending over 100 euro/person/month would spend more if the products would smell and taste good (90%), would look very good (77%), would be produced in Romania (73%), would be sold by a well-established brand (73%), would be sold directly by the farmer (71%), would be brought at home (67%), or would be ecological (56%). While smelling and tasting good is the first criteria both for consumers spending less than and more than 100 euro/person/month, the brand is a criteria used more often by the second category (73% people spending over 100 euro/person/month, compared to 57% people spending less than 100 euro/person/month). Additionally, the level of food expenditures per person have a moderate positive correlation with buying from modern chain retailers (r = 0.18, $p < 0.01$) and eating out (r = 0.16, $p < 0.01$).

The habit of eating out took a hit during the COVID-19 pandemic; the percentage of people eating mostly at home almost tripled, from 15% to 44%. Before the pandemic, 39% respondents were eating out 1–3 times a month and 31% 4–8 times a month, but during COVID-19, 36% ate out 1–3 times a month and only 14% ate out 4–8 times a month. Unfortunately, eating out is positively correlated with wasting food (r = 0.26, $p < 0.01$) and negatively correlated with buying from agro-markets (r = −0.15, $p < 0.01$), suggesting a less sustainable behavior. Additionally, older people seem to eat out (r = −0.29, $p < 0.01$) and buy food online (r = −0.17, $p < 0.01$) less often.

Many respondents (46%) are aware that their food habits have an impact on the natural environment, but only a few agree to consume food created with technological innovations meant to protect the environment (acceptance of innovative sustainable habits); 19% would consume genetic modified food and 18% would consume proteins derived from insects instead of meat.

3.2. Eating Healthy Habits

To evaluate if they are eating healthily, the respondents had to choose a percentage of how much of each food category—fruits and vegetables, cereals, eggs and dairy products, fish, meat, and other types of proteins—they eat in a regular day. For each of the six food

categories, 100 points have been offered to the recommended quantity by the Harvard Eating Plate [51], and the further people went from that—eating too much or too little from a certain food category—the fewer points they received. To ease the interpretation process, the variable resulting when adding the six variables was transformed into a nominal one with five categories, each ranging 120 points out of the maximum of 600 points. The results showed that only 23% respondents have a very healthy diet (481–600 points) and a majority of 58% have a fairly good diet (361–480 points).

Only 28% of the Romanian respondents ate the recommended daily quantity of fruits and vegetables, while proteins were consumed excessively, with 57% respondents declaring that 50% or more of their diet consists of meat products. Of course, the quantity of consumed meat is negatively correlated with the quantity of consumed fruits ($r = -0.16$, $p < 0.01$), vegetables ($r = -0.15$, $p < 0.01$) and cooked food ($r = -0.20$, $p < 0.01$). The impact of this unbalanced diet is partially reflected in respondents' weight; while 57% respondents had normal weight, 7% were underweight, 28% were overweight and 8% were obese. Out of the 173 respondents with normal Body Mass Index (BMI), 25% had a healthy diet and 61% a relatively healthy diet. Only 14% respondents with normal BMI fell in the lower categories regarding the quality of their diet, compared to 33% of the underweight and 28% of the overweight. Moderate positive correlations were identified between age and BMI ($r = 0.33$, $p < 0.01$), weight ($r = 0.23$, $p < 0.01$) and buying from agro-markets ($r = 0.24$, $p < 0.01$), suggesting that with age people tend to gain weight and buy more from agro-markets.

The respondents declared that they would eat more healthily if they had more money (24%), had access to a larger variety of food (12%), knew better recipes (11%) and had better and cheaper healthy food options at restaurants (11%); 9% declare that they do not like the taste of healthy food and another 9% that they do not have a full understanding of the dietary guidelines. Healthy eating is negatively correlated with distrust of the system ($r = -0.21$, $p < 0.01$), more specifically, distrust in sustainable labels and EU food regulations.

Buying ecological food is another aspect of eating healthily while protecting the environment. Almost half of the respondents (46%) buy ecological products. Out of the 115 people that declared they buy ecological products frequently, 81% live in the urban areas, 71% are young (20–39 years old) and 80% buy preponderantly from supermarket chains. Ecological products are bought more by people who have a more balanced diet (49% of the respondents having a good diet, 41% of those having a fairly good diet and very few below that level) and spend over 100 euro/person/month on food (52% of the people spending 100–200 euro and 57% of the people spending over 200 euro). Answering an open-ended question about where they buy ecological food from, 97 out of 307 respondents mentioned modern retailers (supermarkets, hypermarkets or discount stores) and 68 mentioned agro-markets or people they know that live in the rural area.

People who have the habit of buying ecological products declared that being ecological is an important criterion when choosing food (79%), followed by being produced in Romania (74%), coming from a trustworthy provider (73%), having a discount (70%) and having a sustainability label (65%). They declared that they are willing to spend more in order to buy ecological products (85%), products that taste and smell good (89%) and products that look good (70%).

Having discounts appears to be important for all categories of respondents; 68% of respondents who buy ecological food consider the discount criteria in the purchase, as do 75% of people who do not buy ecological products. In contrast, packaging seems to be irrelevant for many customers, 36% customers of ecological products and 40% customers of non-ecological products choosing the null value "3".

One in three of respondents (33%) do not even bother to visit the ecological shelves in the stores. Respondents that declared they do not buy ecological food explained in an open-ended question that ecological products are too expensive (59 respondents), they do not trust that the products are really ecological (24 respondents), they do not understand the difference since the taste is the same (23 respondents) or they do not believe ecological products are healthier (20 respondents). Actually, out of the total of 307 respondents, 39%

declared that they don't trust that EU food policies ensure food safety and 15% that they don't trust that ecological products are truly ecological.

Regarding the measures encouraging people to develop healthier habits, 32% respondents consider that governmental advertisements similar to the one stating that salt, sugar and fats are bad for their health influence them, and 56% consider that, if there were advertising campaigns running explaining which foods are healthy and sustainable, they would change some of their habits.

3.3. Waste Management Habits

One in three respondents (31%) wastes 10% or less of the food in their household, while more than half (57%) waste 11–20% of the food, 10% waste 21–30% and 2% more than 31%. Cooked food is wasted most often. The threshold of over 20% wasted food is reached by 50% respondents for cooked food, 32% respondents for fruits, 31% respondents for bakery products, 30% respondents for vegetables, 27% respondents for dairy products and 21% respondents for meat products. Small but statistically significant negative correlations were identified between wasting food and age ($r = -0.17$, $p < 0.01$), number of sustainable habits ($r = -0.25$, $p < 0.01$), recycling ($r = -0.19$, $p < 0.01$) and eating out ($r = 0.15$, $p < 0.01$).

The respondents declare that the reasons food is wasted in their household are excessive shopping (32%) or excessive food on the plate (18%) and food spoiling too fast (28%). To combat food wasting, 69% respondents declare that when they go shopping, they try to estimate as effectively as possible what they need, and 21% process the food before it wastes by transforming it into another dish or freezing it. Only 5% donate it and 3% make their own fertilizer out of it. When asked if they know about apps or websites helping people and companies to share food instead of wasting it, only 3 out of 307 respondents reported that they knew about such initiatives; two respondents mentioned Too Good to Go, even though this is not on the Romanian market, and one mentioned Share Food, a Romanian app for donating food.

More than half of the respondents (57%) select separate organic wastage from recyclable trash (paper, metal, glass, plastic) and 31% never recycle, while 19% recycle everything, 35% recycle glass and plastic, and 14% recycle only glass. People who recycle buy food from agro-markets ($r = 0.21$, $p < 0.01$), avoid eating out ($r = -0.25$, $p < 0.01$), waste less food ($r = -0.19$, $p < 0.01$) and have more sustainable habits ($r = 0.27$, $p < 0.01$).

Respondents who do not recycle attribute this to there being no recycling bins in their proximity (55 respondents), it being uncomfortable because there is no time or space in their home to do so (29), the garbage company transporting all types of garbage in the same car or throwing it in the same landfill (11), not knowing how to do so (10), or not needing to because there is no mandatory law or regulation (10). Seven respondents mentioned that, although they do not have recycling bins in their proximity, they are using recycling facilities offered by nearby stores.

Asked to identify incentives that would motivate them to recycle, 30% selected "having recycling collection containers close to my house", 19% chose "receiving a small financial incentive for recycling bottles", 16% chose "receiving a discount for the product when bringing back the package (bottle etc.)" and 16% chose "existence of a differentiated waste collection system locally".

Most respondents (68%) have a low level of implementing sustainability habits (5 habits or less), 31% a medium level (6–10 sustainability habits) and only 1% (4 respondents) a high level (11–15 behaviors). The number of adopted sustainable habits is directly correlated with recycling habits ($r = 0.27$, $p < 0.01$) and indirectly with producing food wastage ($r = -0.25$, $p < 0.01$); these could constitute indicators of more sustainable habits. Respondents with low sustainability scores do not really recycle anything (42%) or they recycle only bottles and plastics (31%). They declare that they would recycle for financial rewards (66% compared to 35% in higher scores) and price discounts (72% compared to 28%) or if they would have access to recycling facilities in the proximity of their house (64% compared to 36%).

Respondents with high and medium sustainability scores are the ones that adopt sustainable habits forgotten by most, regardless of their spending level; they reuse water (70% in high spending and 60% in low spending) and they use a shower aerator (67% in high spending and 81% in low spending) and recycled paper (83% in high spending and 72% in low spending). These habits are indicators of people with a high level of adoption of sustainable behaviors. Moreover, one in three (32%) respondents with high and medium sustainability scores recycle everything out of principle and almost one in two (46%) recycle only bottles and plastics.

On another hand, analyzing the data, it became obvious that while some respondents adopt sustainable habits out of principles (19% respondents declare that they recycle everything out of principle and consider food sustainability labels very important), others assume only the sustainable habits that allow them to save money in the short run (22% use economic light bulbs, 14% buy low energy appliances and 10% use ecological programs for the washing machine, while spending less than 100 euro/person/month for food).

3.4. Consumer Profiling

Four customer profiles were identified by running K-Means Cluster Analysis in SPSS (Figure 1), taking into consideration 12 variables: awareness regarding the impact of personal food-related habits' on the environment; level of acceptance of innovative new habits; distrust of sustainability labels and EU food regulations; healthy eating habits; eating out frequency; quantity of wasted food; recycling level; buying food from modern retailers such as supermarkets, hypermarkets and discount stores; buying food online; buying food from sustainable retailers such as agro-markets, non-chain proximity stores and farm or factory gates; level of implementation of sustainability habits; and level of food expenditures.

The Wannabes (Cluster 1: smallest cluster, 35 respondents, 11% of the sample) have a limited budget for food (89% less than 100 euro/month/person), which brings them some practical concerns (40% appreciate as important the criterion 'products being cheap' in their decision-making process and 9%, compared to 0–4% respondents in the other clusters, are interested in statistics regarding the impact of people's habits on their health), while trying to follow trends (46% compared to 0–10% in other clusters often buy food online, 17% compared to 1–3% in the other clusters buy food from sustainable retailers, 54% compared to 7–28% in other clusters accept innovative new sustainable habits, 9% compared to 0–2% in other clusters are influenced by their friends' or colleagues' healthy eating habits).

The Wannabes are always torn between being in budget and being in fashion, between their own reality and keeping up appearances. For instance, even though 49% do not trust sustainability labels and 31% avoid passing by the shelves with ecological products, 54% declare that being ecological is an important criterion in their decision-making process and 46% declare they are actually buying ecological products. They appreciate brands (69%, compared to 78% in the Privileged cluster and 64–65% in the others), but also discounts (71%, compared to 73% in the Sceptic cluster and 65–69% in the others). They enjoy eating out (57% eat out at least once a week, compared to 78% in the Privileged cluster and 20–21% in the others) and some obey the dietary guides (23%, compared to 38% in the Principled cluster and 11–21% in the others), but most do not care about wasted food at home (83%, compared to 47–82% in the other clusters, wasting more than 10% of their food). In fact, they are rarely aware of the impact of their actions on the environment (46% compared to 28–32% in the other clusters) and they are not really interested in sustainability habits. Only 14% of them have more than five sustainable habits. When they do adopt a sustainable habit, it is either because it helps them save some money (46% use economic bulbs, 20% use ecological programs at washing machines), or because it is in vogue (34% compared to 26–41% in other clusters avoid plastic packing, 26% compared to 12–18% in other clusters use solar panels, 17% compared to 9–14% in other clusters have an electric or hybrid car), avoiding the uncomfortable habits.

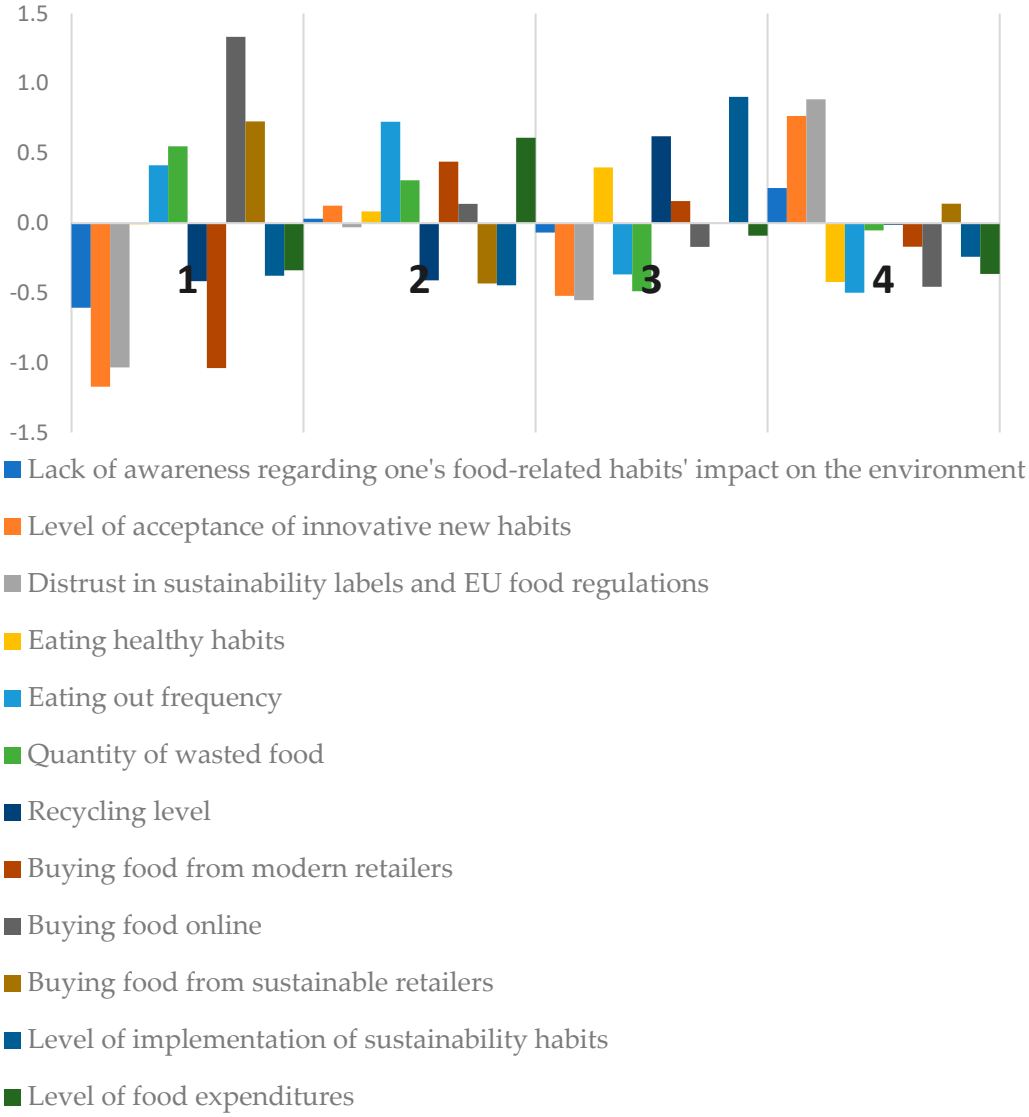

Figure 1. Clusters of consumers resulted by running K-Means Cluster Analysis.

The Privileged (Cluster 2: 90 respondents, 29% of the sample) are the only ones spending over 100 euro/month/person (53% compared to 10–22% in the other clusters), and they eat out often (78% eat out at least once a week compared to 20–57% in the other clusters) and buy almost exclusively in modern chain retail stores (100% buy food in modern chain stores, 10% buy online and 1% buy in sustainable non-chain retailers, such as agro-markets and proximity stores). The Privileged use most often the following criteria in their decision-making: being nutritive and healthy (90%), proximity of the store or convenience (80%) and the brand (78% compared to 64–69% in other clusters).

Although they are mostly aware of their behavior's impact on the environment (78%), only 10% adopted over 5 sustainable behaviors (compared to 14–26% in the other clusters), 82% wasting over 10% their food and 48% not recycling anything. They use only a few sustainable non-food-related habits: 57% use economic lightbulbs and 38% buy low energy appliances. Lack of awareness regarding the impact of one's food-related behavior on the environment is significantly and positively correlated with the lack of awareness regarding sustainability labels ($r = 0.51$, $p < 0.01$) and not buying ecological products ($r = 0.39$, $p < 0.01$).

Despite their low budget for food (78% spend 100 euro/month/person or less), **The Principled** (Cluster 3: 85 respondents, 28% of the sample) register the highest scores regarding sustainable habits (26%, compared to 10–21% in other clusters, have over five

sustainable habits), eating healthy (38%, compared to 11–23% in other clusters), food wastage (53% waste less than 10% food, compared to 17–31% in other clusters), gathering separately the organic waste (73%, compared to 47–53%), recycling everything out of principle (35%, compared to 9–17%, only 4% not recycling at all) and consuming ecological food (61%, compared to 36–46% in other clusters). Additionally, they are the most trusting group, expressing confidence in sustainability labels (only 32% distrust them compared to 38–49%) and having a positive attitude towards EU food regulations (only 9% distrust them).

The Principled buy preponderantly from modern chain retailers (86%, and only 4% online, respectively 2% from sustainable retailers), using the following criteria when choosing what products to purchase: being nutritive and healthy (97%), store being in the proximity (88%), supplier being safe (72%), products being from Romania (66%), discounts (65%), brands (64%) and products having sustainable labels and being ecological (61%, compared to 41–54%, respectively 36–46% in other clusters). It is interesting to note the direct statistically significant correlations between products having sustainability label as criterion in the decision-making process and products being ecological (r = 0.45, $p < 0.01$), Romanian (r = 0.45, $p < 0.01$), European (r = 0.31, $p < 0.01$), coming from a safe supplier (r = 0.56, $p < 0.01$) and coming from the favorite brand (r = 0.32, $p < 0.01$), suggesting the importance and the variety of sustainability labels.

All sustainable non-food-related habits are met more frequently here than in other clusters, and not only the regular ones—using economic lightbulbs (84% compared to 46–66%), buying low energy appliances (67% compared to 23–38%), recycling batteries (60% compared to 23–35%)—but also the more uncomfortable ones, including reusing water (28% compared to 8–22%), using recycled paper (39% compared to 11–12%) and utilizing reusable napkins, diapers, etc. (14% compared to 8–14%).

The Sceptics (Cluster 4: 97 respondents, 32% of the sample) have a low budget for food (90% spend 100 euro/month/person or less), do not trust EU food regulations (34% compared to 6–9% in other clusters) or sustainability labels (44% compared to 49% in the Wannabes and 32–38% in the other clusters), and are not open to new innovative sustainable behaviors such as eating genetically modified food or insect-based proteins (8% compared to 9–54% in other clusters). Most of them live in urban areas, but among Sceptics, there are more respondents living in the rural area than in other clusters (34% compared to 14–20%). They eat the least healthily (11% compared to 21–38% in other clusters) and eat out the least often (20% compared to 21–78% eat out at least once a week). Only 36% buy ecological products, while 40% avoid even visiting the shelves with ecological products.

Among the decision-making criteria, they rank highest compared to the other clusters in terms of 'products being Romanian' (73% compared to 51–66%), 'having discounts' (73% compared to 65–71%) and 'being cheap' (53%, compared to 34–40%). Often, they limit their wastage to 10% of their food (31%, compared to 53% in the Principled cluster and 17–18% in the others), probably because of economic reasons, since 35% of them use only sustainable habits that do not cost much and help them save some money on the short term (e.g., 66% use economic lightbulbs and 33% buy low energy appliances). In order to not waste food, they try to better estimate the needed quantity (83%), to process (23%) or donate (5%) the food about to spoil, and even make their own compost (7% compared to 5% in the Principled and 0–1% in the others).

Out of the four types of customers (Table 2), the Principled are the only ones truly supporting food-related sustainable habits, the Privileged are the ones spending most, the Wannabes are always torn between being in budget and being in fashion, and the Sceptics are always on the budget.

Table 2. Customers' typology and their sustainable food-related behaviors.

Cluster 1	The Wannabes (11%): fashionable, but with a limited budget for food, they are practical and a little schismatic in behavior, adopting only sustainable habits that are either trendy—even expensive ones—or helping them to save some money.
Cluster 2	The Privileged (29%): the only group with a high budget for food, aware of their impact on the environment, but not particularly interested in sustainability, adopting very few sustainable habits.
Cluster 3	The Principled (28%): the only group with high scores at multiple sustainable habits, including uncomfortable, unpopular and expensive ones, despite their low budget for food.
Cluster 4	The Sceptics (32%): having the lowest budget for food and the least healthy eating habits, they are interested primarily in sustainable habits that help them save money.

4. Discussion

Eating healthily, according to the dietary recommendations, not only benefits the individual, but also benefits the environment, reducing the footprint of the entire food system [11]. Nevertheless, reducing meat consumption, one of the sustainable dietary changes recommended in the literature, seems to be difficult to achieve in Romania, since 57% respondents declare that 50% or more of their diet consists of meat products.

Another way customers can contribute to reducing the food system's footprint is by purchasing products with sustainability labels [17]. The most important criteria respondents use to choose what products to purchase include: food being nutritious and healthy (89%), being produced in Romania (64%), being ecological (53%) and having a sustainability label (52%). These attributes can be emphasized by sustainability labels which use a simple design—for instance, using traffic light colors—to be easily understood by customers [17]. In fact, Multiple Traffic Lights, warning labels and Nutri-Scores were found to be the most successful in helping customers understand which are the healthy and the environment-friendly products [52]. However, a big problem not only in Romania is the lack of trust in claims of sustainability [18], with 39% of respondents declaring that they do not trust EU food policies to ensure food safety and 15% that they do not trust that ecological products are truly ecological. Making the production process more transparent and communicating about what sustainability labels mean [53] should increase the consumers' understanding and trust in sustainable products.

More than half (56%) of the respondents declared that they would be influenced by advertisements encouraging healthy eating and protecting the environment through their food-related habits. Engaging and educating consumers through marketing communication is efficient when it takes into consideration their characteristics and motivations. For instance, while respondents spending 100 euro/person/month or less for food are rather interested in the financial value of their food-related decisions, respondents spending more are interested in how food looks, smells and tastes, and on the brand. Additionally, analyzing the research results, there were identified four main customers' interests when deciding to adopt sustainable habits:

(1) Protecting their own health and the environment (intrinsic motivation): 89% declare that being nutritive and healthy is an important criterion when choosing food, but only 23% have a diet very similar to the dietary recommendations, 19% recycle everything out of principle and consider food sustainability labels very important. This interest is met predominantly in the Principled;

(2) Ensuring a good lifestyle (extrinsic motivation): 26% spend over 100 euro/month/person for food, 31% eat out at least once a week and 11% declare they would like to

find better options of healthy and sustainable food when eating out. This interest is met predominantly in the Privileged;

(3) Benefiting financially or, at least, avoiding monetary penalties due to their choices regarding food sustainable habits (extrinsic motivation): 50% use economic light bulbs, buy low energy appliances and recycle if there are binding regulations, not to protect the environment, but to spend less or not to receive a fine. This interest is met predominantly in the Sceptics and in the Wannabes;

(4) Being fashionable by assuming trendy sustainable habits (extrinsic motivation): 18% respondents purchase expensive sustainable products, including ecological food and hybrid cars, but do not have a special interest in protecting the environment. This interest is met predominantly in the Wannabes.

The four profiles in the developed customer typology (Table 1) is in line with the international research: the Principled trust the industry [41], are altruistic [35], environmental green [40], committed [45], consider their impact on the environment [36,44] and have circular behavior [45]; the Privileged and the Wannabes are unattached, interested but not decided [45], taking decisions based not on sustainability but on what preserves their social status or what is trending; the Sceptics are not interested in sustainability at all [45], have transitioning behaviors, adopt some niche sustainable behaviors [46] and are price-oriented [40,41], the price constituting an important barrier in adopting sustainable behaviors [43,44]. Understanding the customers' profiles helps to identify the most effective incentives for each. For instance, the Sceptics are interested in financial incentives, the Wannabes in trends and influencers' behaviors, the Principled in understanding the need for each healthy and sustainable behavior, and the Privileged in confirmation of their social and economic status.

Another aspect that should be considered when sustainability policies are designed is emphasized in multiple ways by the respondents: sustainable habits can be expensive, especially since most respondents have a budget of maximum 100 euro/person/month for food. For instance, they declare that being cheap and having discounts are important criteria when choosing what to buy (42% and 69%) and that they would eat healthier if they had more money (24%); some are interested in financial incentives to recycle (19% want to receive financial rewards and 16% want to receive discounts for recycling); and many explain, in an open-ended question, that they do not buy ecological products because they are too expensive (59 out of 307 respondents). This falls into the European trend; a McKinsey study [39] shows that price is a priority for 42% consumers across Europe and that 28% are actively search for the best promotions when purchasing food, while 34% are focused on healthy eating [39]. Additionally, the research showed that eco-friendly habits requiring a higher initial investment are seldom adopted in Romania—only 6% respondents use solar panels and 4% use an electric or hybrid car—even though they are favored by national and European policies through grants and other incentives. Therefore, the need to develop more accessible sustainable products and behaviors—food-related or otherwise—becomes obvious, especially in developing countries.

Proximity is another important aspect, both for the retailers (81% respondents using proximity as a criterion deciding where to buy from) and for the recycling facilities (30% choosing it as a favorite incentive to recycle). Proximity favors modern store chains, which are preferred by the Romanian respondents (82% are purchasing food frequently from supermarkets, hypermarkets or discount stores). For agro-markets and other sustainable distribution channels, it is more difficult to ensure proximity, but they could get closer to customers through direct marketing, since 72% respondents declare that they would pay more if the product was sold directly by the farmer and 63% would pay more if the products could be bought at home. Irrespective of the distance, some respondents are already buying food frequently from sustainable retailers such as non-chain proximity stores (27%), agro-markets (23%) and online stores (9%).

Regarding the waste management, 57% respondents are separating organic waste from recyclable waste (paper, metal, glass, plastic). They consider that organic waste is

so high because of excessive shopping (32%), excessive food on the plate (18%), or food spoiling too fast (28%). Educating people to be more responsible regarding food purchasing and consumption could help to partially prevent organic wastage. On this account, some respondents had already tried several solutions, in line with the European Commission's following directions [2]: "Reduction" by buying less food (69% of the respondents) and "Valorization" by processing food that is about to be wasted (21%), turning it into fertilizer (3%), donating it (5%) or sharing it through new online platforms (only three respondents mentioned them in an open-ended question, because only a few such apps are functional in Romania).

Some respondents never recycle (31%, 133 respondents) because it is uncomfortable, since they have no recycling bins in their proximity (55 respondents in an open-ended question), there is no time or space in their home for that (29 respondents), or the garbage company transports all types of garbage in the same car or throw it in the same landfill (11 respondents).

In order to introduce and reinforce sustainable habits at the consumer level, there is a need for accessible and efficient support services, such as recycling facilities in the proximity of one's house, food sharing platforms and established incentives for recycling or sharing, etc. Therefore, to contribute to the food system's sustainability, consumers need to have access (affordability and proximity) to sustainable products to have an understanding of the relevant reasons for choosing sustainable products (their health, their financial wellbeing, the environment's wellbeing, the trends, etc.) and to have knowledge of and access to waste management support services. All these can be molded by different stakeholders—Policy-makers, non-governmental organizations and even food retailers—through specific interventions (Table 3).

Coherent local, national and international laws and policies favoring sustainable foods and retailers enhance their competitiveness. Next to this, educating the consumers and ensuring the necessary facilities are important directions of pro-sustainability interventions.

Table 3. Examples of pro-sustainability interventions.

Phase	Objectives	Examples of Intervention	Stakeholders
Purchasing phase	Ensuring the sustainable products' accessibility—availability, affordability and proximity	Establishing higher food quality standards for the competitors on the market	Policy-makers
		Offering legal support for sustainable labels	
		Providing tax incentives favorable to healthy food	
		Ensuring the implementation of the system—fines and rewards	
		Offering free of charge business, legal, etc. support to sustainable producers and retailers to be able to compete with large food companies	Non-governmental organizations (NGOs)
		Introducing sustainable private labels	Food retailers
		Offering discounts and other promotions for sustainable products	
		Using direct marketing and online selling to get closer to the consumers	

Table 3. *Cont.*

Phase	Objectives	Examples of Intervention	Stakeholders
	Educating the consumers to choose healthy and sustainable food	Ensuring the transparence regarding the sustainability level of each product with the help of sustainable labeling	Policy-makers
		Public information campaigns about sustainable and healthy food	
		Introducing nutrition and health classes in schools	
		Free classes for children and adults regarding nutrition and food-related sustainability	NGOs
		Obeying the legal norms regarding quality standards, sustainability labels, etc.	Food retailers
		Communicating about their sustainable actions	
		Rewarding the sustainable purchases within the loyalty programs	
	Encouraging consumption of sustainable food in store, while shopping	Ensuring transparency of sustainability information	Food retailers
		Placing in-store advertisements	
		Ensuring a good shelf placement to the sustainable products	
		Conducting promotions for sustainable products	
Consumption phase	Educating the consumer regarding dietary recommendations and rational consumption	Public information campaigns about sustainable and healthy food	Policy-makers at all levels
		Developing Just-In-Time Adaptive Interventions that help customers take healthy and sustainable decisions during food consumption	Food retailers and/or NGOs
Waste management phase	Existence and proximity of effective support services for separated collection of wastage	Offering supportive regulations	Policy-makers
		Ensuring the implementation is functional and effective	
		Offering positive (rewards, buy-back) and/or negative (fines) incentives	
		Offering positive incentives (discounts, vouchers or money) to customers recycling in their stores	Retailers
		Developing sharing food programs and platforms	Food retailers and/or NGOs
	Educating the consumer regarding waste management—importance, how to do it and benefits if they are doing it	Informational Advertisement campaigns	Policy-makers, Food retailers and/or NGOs

Using both secondary and primary data to describe consumers' food-related choices, this research confirms some of the findings of previous studies and contradicts others, thereby providing some novel insights on the matter. The confirmed findings of previous

studies are as follows: malnutrition exists in Europe, and more specifically in Romania [9]; only 23% respondents have a very healthy diet; 39% consumers do not trust in products' claim of sustainability [18] and 35% are not aware of the sustainability labels [19]; 39% consumers trust and know they need European supportive regulations for sustainable behaviors [48]; 30% declare they need support services [50] including recycling facilities in the proximity of their home; and 56% declare that they would be influenced by marketing communication educating on healthy and sustainable habits [7]. On another hand, some of the results differ from previous studies' findings; for example: Romanian consumers are not yet aware of food sharing platforms [30–34]. In this sample, there are three consumer types with transitioning behavior, one with circular behavior, and none with the linear one [46]. Meat seems to be the least wasted food category in Romania, not the fourth as seen in another paper [13].

Novel insights regarding consumers' food-related choices were found. (1) The second criterion used in decision-making process, after the obvious 'being nutritious and healthy', was 'the store being in proximity' (81%); this criterion is often forgotten in studies, but it could be used strategically for sustainable food and sustainable retailers' placement. (2) Most respondents (74%) spend a maximum of 100 euro/person/month for food and appreciate lower prices (42%) and higher discounts (69%). (3) Having discounts appears to be important for all categories of respondents, e.g., 68% of respondents who buy ecological food and 75% of people who do not. (4) Eating out is correlated with non-sustainable habits such as wasting food ($r = 0.26$, $p < 0.01$), which suggests that eating at home is more sustainable [22]. (5) There are very few people accepting of innovative sustainable habits such as consuming genetically modified food (19%) and proteins coming from insects instead of meat (18%), despite knowing that this would be a good thing for the environment. (6) Over half of the respondents (57%) declared that 50% or more of their diet consists of meat products, and only 28% ate the recommended daily quantity of fruits and vegetables; considering meat consumption's negative effects on people's health and environment's wellbeing, this should be one of the first objectives for educational communication efforts. (7) Most respondents (68%) have a low level of implementing sustainability habits (five habits or less), others assume only the sustainable habits that allow them to save money (72%), and very few adopt a multitude of sustainable habits out of principles (19%).

5. Conclusions

This paper offers a comprehensive picture of customers' sustainable food-related habits and opinions, as contributors to building the first climate-neutral continent by 2050 [3]. There are many ways that consumers can get involved; for example, by purchasing and eating healthy and sustainable food, choosing sustainable retailers, avoiding non-sustainable packing, and preventing and effectively managing food wastage by recycling, etc.

Some particularities of the Romanian consumer have been emphasized, i.e., the very high meat consumption and low adherence to dietary guidelines; the relatively low level of adoption of sustainability habits; the importance of proximity for both food retailers and recycling facilities, etc. Additionally, using K-Means Cluster Analysis, four customer profiles were developed, each being differently motivated to adopt sustainable habits. It is expected that those profiles will be valid in other European countries, too, especially in the Eastern ones, but further research is needed to confirm this. The Principled consumers protect their own health and the environment; the Privileged ensure their good lifestyle and confirm their social and economic status,; the Wannabes assume trendy and sometimes expensive sustainable habits despite their low food expenditures level; and the Sceptics try to benefit financially or, at least, to avoid monetary penalties due to their choices regarding food-related sustainable habits. Understanding the customers' profiles helps one in identifying the most effective interventions (public policies, incentives, courses, marketing communication, etc.), that can be initiated by all types of stakeholders (academia,

health systems, advocacy groups, businesses, employers, schools, multinational companies, etc.) [50].

Managerial implications are related to the pro-sustainability interventions (Table 3) initiated by different stakeholders: policy-makers at all levels (European, national, local city administration and even tenants' associations), non-governmental organizations with a focus on health or sustainability, and even food industry actors, especially retailers, since they have a direct interaction with the consumers. Interventions can offer supportive regulations, ensuring accessibility of sustainable products, offering support services for sustainable food-related habits, educating the consumer regarding their behavior's impact on the environment, creating and reinforcing sustainable social norms, and offering incentives, etc.

Considering the exploratory nature of the research, a limitation is that the sample is not representative of Romania's population, neither by size nor by structure. Even so, the exploratory purpose of better understanding Romanian consumers' food-related behavior was achieved, the results offering a comprehensive image on their habits, motivators and opinions. To ensure representability at the European level, the study could be replicated in other Eastern and Western-European countries. Future research could further explore the customer profiles and the motivation and mechanisms determining food-related behaviors, focusing on details, to offer suggestions to stakeholders regarding better and more effective interventions.

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